

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optical connector device, comprising:
a ~~two-dimensional~~ sheet-like optical waveguide layer;
a semiconductor laser having a function capable of ~~switching a plurality of~~
~~different oscillation modes~~ changing a radiation angle of a light; and
an optical path ~~converting~~ changing structure for ~~converting~~ changing an optical
path of ~~an outgoing~~ the light from the semiconductor laser~~[[,]]; and~~
~~wherein the optical path converting structure is disposed within the two-~~
~~dimensional optical waveguide layer such that a radiation angle of the semiconductor~~
~~laser changes within the two-dimensional optical waveguide layer upon switching over~~
~~the oscillation mode of the semiconductor laser, and the outgoing light from the~~
~~semiconductor laser propagates in the two-dimensional~~ light-receiving elements for
receiving the light from the semiconductor laser through the sheet-like optical waveguide
layer.

2. (Currently Amended) An optical connector device according to claim 1,
comprising:
wherein the ~~semiconductor laser is a vertical cavity surface-emitting laser formed~~
~~with a current constricting layer in a vicinity of an active layer composing the~~

~~semiconductor laser~~ radiation angle is changed by an injection current, an applied voltage or temperature control.

3. (Currently Amended) An optical connector device according to claim
[[2]]1, comprising:

~~wherein the oscillation mode of the vertical cavity surface emitting laser is
switched by control of at least one of a shape of an aperture (current path) of the current
constricting layer and an injection current amount of the vertical cavity surface emitting
laser~~ optical path changing structure is disposed within the sheet-like optical waveguide
layer.

4. (Currently Amended) An optical connector device according to claim
[[3]]1, comprising:

~~wherein the control causes a change in a radiation angle of a far field image of the
semiconductor laser~~ is a surface-emitting laser.

5. (Currently Amended) An optical ~~and electrical circuit combined board,~~
~~comprising the optical connector device according to claim~~ [[1]]4, comprising:

~~formed so as to obtain electrical connection with an electrical circuit board,
wherein a part of or whole signals from the electrical circuit board are transmitted
by optical circuit as transmission of optical signals using the optical connector device~~

wherein a surface-emitting laser is formed with a current blocking layer in a vicinity of an active layer.

6. (New) An optical connector device according to Claim 1, comprising:
wherein the radiation angle of the image is the radiation angle of a far-field image.

7. (New) An optical and electrical wiring combined substrate, comprising:
the optical connector device according to claim 1 formed so as to obtain electrical connection with an electrical circuit board,
wherein a part of or whole signals from the electrical circuit board are transmitted by optical wirings as transmission of optical signals using the optical connector device.